Hexavalent Chromium (Cr6) Toxicity Re-Assessment

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What is Chromium?

Chromium:

- Naturally-occurring metal – also used industrially: metal plating, pigments
- Present in 2 forms:
  - Trivalent: Cr3
  - Hexavalent: Cr6

Chromium & Health

Chromium:

- Cr3 is an essential nutrient – present in vegetable, fruits, meats, grains & many multi-vitamines
- Cr6 can cause cancer
  - Strong evidence by inhalation exposure
  - Weak evidence by oral exposure – relevance to Cr6 in drinking water uncertain
- Cr6 converted to Cr3 in the stomach

Chromium Toxicity Re-Assessment

Re-Assessment Underway:

- Is Cr6 a cancer risk in drinking water?
- Timeframe uncertain
  - EPA is revising toxicity re-assessment priorities in response to National Academy of Sciences – re-assesment schedules being revised.

Chromium – Other Activities

- Cr6 now being monitored in U.S. drinking water systems
- EPA will reconsider the drinking water standard after completion of the toxicity re-assessment
  - "likely that EPA will tighten drinking water standards" (Lisa Jackson)

Summary…

Questions?

MCLs

Maximum Contaminant Limit

- Enforceable drinking water standards set under the Safe Drinking Water Act
- Not purely health- or risk- based
  - Health-based MCL Goals are modified to account for the practicability & cost of treating to meet MCL
  - often less stringent
- MCLs are ARARs
  - Applicable or Relevant & Appropriate
  - $F cleanups must meet ARARs (at least)
- www.**epa**.gov/ogwdw/consumer/pdf/**mcl**.pdf